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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/624,860

Applicant(s)

CHAN ET AL.

Examiner

Peter Coughlan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/21/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

1. This office action is in response to an AMENDMENT entered August 21, 2007 for the patent application 10/624860 filed on July 21, 2003
2. All previous Office Actions are fully incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 1-3, 5-31 are pending.

35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 5-31 are rejected under 35 U.S.C. 101 for nonstatutory subject matter. The computer system must set forth a practical application of that § 101 judicial exceptions to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at

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676-77. The invention is ineligible because it has not been limited to a substantial practical application. Although the claims and the specification recite a business solution management system, both are silent concerning a practical application of said business solution management system. The result has to be a practical application. Additionally the application is claiming preemption due to known and unknown uses. Per paragraph 0003, the invention 'may involve technology such as a computer system and software.' Meaning it 'may' something else. Additionally, the invention 'addresses internal and external business issues.' 'External business issues' pertain to anything outside a 'business issue' domain.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. There are no specified topics in which the business solution management system can be employed. There is no specified field within a topic in which the business solution management system can be employed. Examples of a topic which the claims or specification is silent are, mining operations, retail sales, healthcare. Examples of a field within the topic in which the claims or specification is silent are, human resources, inventory, or profit margin.

The invention must be for a practical application and either:

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- 1) specify transforming (physical thing) or
- 2) have the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/ non-unpredictable), AND tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended.

The 'business solution management system' is nothing more than an exercise without a practical application. There must be a result, output or use that is a practical application. Additionally there is the issue of preemption due to known and unknown uses for the invention. 'External business issues' can be anything outside a 'internal business issue' domain.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21, 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state a 'solution template' without a defined description. Paragraph 0260 states they are 'objects that represent application and technology offerings from SAP' which is not defined. Paragraphs 0300 and 0301 state that 'may' include standard BSM Solution Determination Procedures and they 'may' handle creation of new Solution Determination Procedures. 'Solution template' is not defined within the specification.

These claims need to be amended or withdrawn from consideration.

Claims 1, 3, 7, 15, 20, 21, 25, 28, 29, 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state the existence of a 'technology object.' 'Technology object' is not defined within the specification. In paragraph 0053, the specification states 'technology components utilized in the BSM system 101 'may' be implemented as instances of a technology object type. This does not describe the characteristics of a 'technology object', in addition, the word 'may' is in the paragraph 0053 indicating it 'may' be something else as well.

These claims need to be amended or withdrawn from consideration.

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Claims 1, 2, 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state a first and second data repositories, when in fact the abstract of the invention only mention a single data repository.

These claims need to be amended or withdrawn from consideration.

Claims 1, 3, 6, 21, 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state the existence of a 'business object.' 'Business object is not defined within the specification. In paragraph 0053, 'Business components of a solution development effort may be defined as business object.' The word 'may' is within the description, meaning it 'may not' as well. In paragraph 0122, 'the BSM system 150 may provide pre-loaded business object for modeling' is stated. 'May' is used again in addition BSM system provides no additional information concerning what is a 'business object.'

These claims need to be amended or withdrawn from consideration.

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Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This claim states that a user can 'select' a 'business solution' but this is not supported within the specification.

This claim must be amended or withdrawn from consideration.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This claim states that the user can maintain and modify the knowledge base but the specification states that the user can only maintain the knowledge base and not modify it.

This claim must be amended or withdrawn from consideration.

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. Paragraph 0544 states that a user can modify a project template (not a project as stated within the claim) but cannot maintain a project.

This claim must be amended or withdrawn from consideration.

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no mention within the specification that a user can both maintain and modify an 'integrated implementation.'

This claim must be amended or withdrawn from consideration.

Claims 2, 8, 10, 11, 12, 13, 14, 16, 17, 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state the existence of a 'repository layer' which is not mentioned within the specification.

These claims need to be amended or withdrawn from consideration.

Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This claim states the existence of a 'technology component identifier'. A 'technology component identifier' is not defined within the specification. It 'may' be in paragraph 0080, '(TCI) application 240 may be a classification system that supports multi-level class definitions' or in paragraph 0081 it 'may be invoked by the Solution Management application 230 to identify a particular class object', but there is no definite purpose of function stated within the specification.

This claim must be amended or withdrawn from consideration.

Claims 17, 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no mention within the specification that the 'solution determination structures' are stored within a repository.

These claims must be amended or withdrawn from consideration.

Claims 18, 20, 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

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had possession of the claimed invention. These claims use the term 'linked' but there is no mention how a 'link' is made. There is no algorithm mentioned, tables used or method stated which can be used to 'link' objects to routines.

This claim must be amended or withdrawn from consideration.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no mention within the specification that a 'plurality of solution determination structures' are provided.

This claim must be amended or withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 29 is rejected under 35 U.S.C. 102(b) (hereinafter referred to as **Fowler**) being anticipated by 'UML Distilled: A Brief guide to the standard Object Modeling Language.'

Claim 29

Fowler teaches prompting a user to select at least one instantiated business process object and one instantiated technology object; (**Fowler, #18, #5**; One example of the generation of a 'feature' is the combination of a 'behavioral feature' and a 'structure feature' of Fowler. To add features, the creation of a subtype is needed. Thus 'prompting a user to select...' is the ability to create a 'subtype' of Fowler.) receiving user parameters(**Fowler, #5, Figure 1.1, #12**; 'User parameters' of applicant is equivalent to 'parameter' of Fowler.); designing a business solution using the selected business process object, technology object, and user parameters(**Fowler, #5, Figure 1.1, #12**; 'Predefined business objects' of applicant is equivalent to the 'behavioral feature' of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of Fowler.); maintaining and modifying the business solution subsequent to implementation of the business solution, the implementation based, at least in Dart, on a current state of the business object and the technology object; and (**Fowler, #8**; 'Maintaining' of applicant is equivalent to '...as these objects that are set up and then left alone...' of Fowler. 'Modifying' of applicant is equivalent to '...they are not modified often, and when they are, we can create them again.' of Fowler.) persisting the modified business solution for subsequent presentation through a graphical user interface. (**Fowler, #1:21-24 and #4:14-39**; A working interface must be able to have a system that can 'interface with along with protocols and physical media.' 'Graphical user

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interface' of applicant is disclosed by a 'the creation of various graphical or text based documents' of Fowler.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler as set forth above, in view of Chappel. (U. S. Patent Publication 20020174005, referred to as **Chappel**)

Claim 1

Fowler teaches software comprising instructions stored in a computer readable medium (**Fowler, #7**; 'Software' of applicant is equivalent to 'Unified modeling language' of Fowler.), the software allowing a user to (a) design a business solution with user parameters, instantiated user-selectable, pre-defined business objects, and instantiated user-selectable, pre-defined technology objects (**Fowler, #5**, Figure 1.1,

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#12; 'Predefined business objects' of applicant is equivalent to the 'behavioral feature' of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of Fowler. "User parameters' of applicant is equivalent to 'parameter' of Fowler.) allowing a user to maintain and modify the business solution designed by the user subsequent to implementation of the business solution, the implementation based, at least in part, on a current state of the business objects and the technology objects (**Fowler, #8; 'Maintain'** of applicant is equivalent to '...as these objects that are set up and then left alone...' of Fowler. 'Modify' of applicant is equivalent to '...they are not modified often, and when they are, we can create them again.' of Fowler.) and; persisting the modified business solution for subsequent presentation through a graphical user interface. (**Fowler, #1:21-24 and #4:14-39**; A working interface must be able to have a system that can 'interface with along with protocols and physical media.' 'Graphical user interface' of applicant is disclosed by a 'the creation of various graphical or text based documents' of Fowler.)

Fowler does not teach a first data repository comprising the instantiated user-selectable, pre-defined business objects; and a second data repository comprising the instantiated user-selectable, pre-defined technology objects.

Chappel teaches a first data repository comprising the instantiated user-selectable, pre-defined business objects (**Chappel, ¶0026; 'First data repository'** of applicant is equivalent to 'source database' of Chappel.); and a second data repository comprising the instantiated user-selectable, pre-defined technology objects. (**Chappel, ¶0026; 'Second data repository'** of applicant is equivalent to 'rules database' of Chappel.) It would have been obvious to a person having ordinary skill in the art at the

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time of applicant's invention to modify the teachings of Fowler by having different databases to hold different types of information as taught by Chappel to have a first data repository comprising the instantiated user-selectable, pre-defined business objects; and a second data repository comprising the instantiated user-selectable, pre-defined technology objects.

For the purpose of segmenting different types of information to ease updating needs and lowering replacement cost in case of hardware failure.

Claim 25

Fowler teaches providing at least a first software application and a second software application, the first software application allowing a user to design a business solution with user parameters, instantiated user-selectable, pre-defined business process objects and instantiated user-selectable, pre-defined technology objects (**Fowler**, #5, Figure 1.1, #12; 'Predefined business objects' of applicant is equivalent to the 'behavioral feature' of Fowler. 'Predefined technology objects' of applicant is equivalent to 'Structure feature' of Fowler. "User parameters' of applicant is equivalent to 'parameter' of Fowler.), and the second software application allowing the user to maintain and modify the business solution subsequent to implementation of the business solution, the implementation based, at least in part, on a current state of the business process objects and the technology objects, at least one of the first or second software applications persisting the modified business solution for subsequent presentation through a graphical user interface. (**Fowler**, #8, #1:21-24 and #4:14-39;

'Maintain' of applicant is equivalent to '...as these objects that are set up and then left alone...' of Fowler. 'Modify' of applicant is equivalent to '...they are not modified often, and when they are, we can create them again.' of Fowler. #1:21-24 and #4:14-39; A working interface must be able to have a system that can 'interface with along with protocols and physical media.' 'Graphical user interface' of applicant is disclosed by a 'the creation of various graphical or text based documents' of Fowler.)

Fowler does not teach providing the instantiated user-selectable, pre-defined business process objects to a first data repository; and providing the instantiated user-selectable, pre-defined technology objects to a second data repository.

Chappel teaches providing the instantiated user-selectable, pre-defined business process objects to a first data repository (**Chappel**, ¶0026; 'First data repository' of applicant is equivalent to 'source database' of Chappel.); and providing the instantiated user-selectable, pre-defined technology objects to a second data repository. (**Chappel**, ¶0026; 'Second data repository' of applicant is equivalent to 'rules database' of Chappel.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Fowler by having different databases to hold different types of information as taught by Chappel to have the instantiated user-selectable, pre-defined business process objects to a first data repository; and providing the instantiated user-selectable, pre-defined technology objects to a second data repository.

For the purpose of lowering replacement cost in case of hardware failure and segmenting different types of information to ease updating requirements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler as set forth above, in view of Bowman. (U. S. Patent Publication 6339832, referred to as **Bowman**)

Claim 30

Fowler does not teach wherein the instructions are operable to cause one or more machines to organize business process objects, technology objects, and user parameters in a linked structure.

Bowman teaches wherein the instructions are operable to cause one or more machines to organize business process objects, technology objects, and user parameters in a linked structure. (**Bowman**, C9:4-7; 'Linked structure' of applicant is equivalent to 'network' of Bowman.) It would have been obvious to a person having

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ordinary skill in the art at the time of applicant's invention to modify the teachings of Fowler by having an organizing structure as taught by Bowman to have the instructions are operable to cause one or more machines to organize business process objects, technology objects, and user parameters in a linked structure.

For the purpose of the invention to have some organized structure so finding necessary information can be achieved in reasonable time.

Claim 31

Fowler does not teach wherein the instructions are operable to cause one or more machines to provide solution templates.

Bowman teaches wherein the instructions are operable to cause one or more machines to provide solution templates. (**Bowman**, C15:9-32) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Fowler by having the ability to provide information to the user as taught by Bowman to have wherein the instructions are operable to cause one or more machines to provide solution templates.

For the purpose of the user being able to access the information and provide it to the user for future needs as required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 5-24, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Fowler and Chappel as set forth above, in view of Bowman. (U. S. Patent Publication 6339832, referred to as **Bowman**)

Claim 2

Fowler and Chappel do not teach a portal layer, a software application layer a data repository.

Bowman teaches a portal layer, (**Bowman**, C31:57 through C32:5; 'Portal layer' of applicant is equivalent to 'communication services' and communication fabric' of Bowman.) a software application layer (**Bowman**, C3:48-50; 'Software application layer' of applicant is equivalent to 'software development and management' of Bowman.) a data repository. (**Bowman**, C37:46-53; 'Data repository' of applicant is equivalent to 'central design repository' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having multiple layers incorporated within the

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design as taught by Bowman to have a portal layer, a software application layer a data repository.

For the purpose of following standard software design principles which speed development.

Claim 3

Fowler and Chappel do not teach the first and second agents providing graphical user interfaces to the first and second software applications; the first software application being operable to allow a user to design a business solution with user parameters and user-selectable, pre-defined business objects and pre-defined technology objects; the second software application being operable to allow a user to manage the business solution.

Bowman teaches the first and second agents providing graphical user interfaces to the first and second software applications; the first software application being operable to allow a user to design a business solution with user parameters and user-selectable, pre-defined business objects and pre-defined technology objects; the second software application being operable to allow a user to manage the business solution. (**Bowman**, C116:52-57; The 'first agent' and 'second ' agent of applicant is equivalent to 'system software' and 'management systems' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having graphical interfaces as taught by Bowman to have the first and second agents providing graphical

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user interfaces to the first and second software applications; the first software application being operable to allow a user to design a business solution with user parameters and user-selectable, pre-defined business objects and pre-defined technology objects; the second software application being operable to allow a user to manage the business solution.

For the purpose of having a user friendly interface with a user to employ the invention.

Claim 5

Fowler and Chappel do not teach a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects.

Bowman teaches an interview module operable to display questions to a user and receive answers from the user to be used by the first software application.

(**Bowman**, abstract 'Interview module' of applicant is illustrated by entering an 'exception' and answers are provided by the 'exception response table' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by being able to input data as taught by Bowman to have a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects.

For the purpose of using a template as a function and being able to input variables into the template of function in order to produce an outcome.

Claim 6

Fowler and Chappel do not teach a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects.

Bowman teaches a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects. (**Bowman**, abstract; When the user enters the parameters (equivalent to 'exception' of Bowman) this function is equivalent to a 'business process engineer' of applicant.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by using input data with predefined functions as taught by Bowman to have a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects.

For the purpose of obtaining a result from the predefined business objects.

Claim 7

Fowler and Chappel do not teach solution technology engineer application operable to receiving user parameters and design technology solutions with the pre-defined technology objects.

Bowman teaches solution technology engineer application operable to receiving user parameters and design technology solutions with the pre-defined technology objects. (**Bowman**, abstract; 'Solution technology engineer' of applicant is equivalent to responding with the correct 'exception response' that is listed in the 'exception response table' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by using input data with predefined functions as taught by Bowman to have solution technology engineer application operable to receiving user parameters and design technology solutions with the pre-defined technology objects.

For the purpose of obtaining a result from the predefined technology objects.

Claim 8

Fowler and Chappel do not teach stores a plurality of business solutions, the second software application being operable to allow a user to select one of the business solutions.

Bowman teaches stores a plurality of business solutions, the second software application being operable to allow a user to select one of the business solutions. (**Bowman**, C37:46-53; 'Business solutions' of applicant is equivalent to 'application objects' of Bowman. 'User to select' of applicant is equivalent to 'check-in/check-out' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having stored business solutions as taught by Bowman to stores a plurality of

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business solutions, the second software application being operable to allow a user to select one of the business solutions.

For the purpose of outputting the business solutions without the cost of generating the solution themselves.

Claim 9

Fowler and Chappel do not teach a knowledge base management application operable to allow a user to manage a knowledge base.

Bowman teaches a knowledge base management application operable to allow a user to manage a knowledge base. (**Bowman**, C55:59-67; 'Knowledge base management' of applicant is equivalent to 'document management' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having an overall management system as taught by Bowman to have a knowledge base management application operable to allow a user to manage a knowledge base.

For the purpose of easing the burden of managing the system without being concerned with the details of managing the system.

Claim 10

Fowler and Chappel do not teach a project management application operable to allow a user to manage a project from a project repository associated with the data repository layer.

Bowman teaches a project management application operable to allow a user to manage a project from a project repository associated with the data repository layer. (**Bowman**, C149:50-65 and C31:28-33; 'Project management' of applicant is illustrated by 'how to use project specific application frame work' of Bowman (Bowman does not give it a specific name.)) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having the management application be able to work with the data repository layer as taught by Bowman to have a project management application operable to allow a user to manage a project from a project repository associated with the data repository layer.

For the purpose of being able to manage all aspects of the invention, the management application must be able to interact with all layers on the invention.

Claim 11

Fowler and Chappel do not teach an integrated implementation management application operable to allow a user to manage an integrated implementation from an implementation repository associated with the data repository layer.

Bowman teaches an integrated implementation management application operable to allow a user to manage an integrated implementation from an implementation repository associated with the data repository layer. (**Bowman**, C7:36-37 and Figure 127; Bowman illustrates the modules of a implementation interface which enables the user to integrate implementation. (Bowman just does not give it a specific

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name.)) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having the management application be able to work with the data repository layer as taught by Bowman to have an integrated implementation management application operable to allow a user to manage an integrated implementation from an implementation repository associated with the data repository layer.

For the purpose of being able to manage all aspects of the invention, the management application must be able to interact with all layers on the invention.

Claim 12

Fowler and Chappel do not teach a methodology management application operable to allow a user to manage a methodology from a methodology repository associated with the data repository layer.

Bowman teaches a methodology management application operable to allow a user to manage a methodology from a methodology repository associated with the data repository layer. (**Bowman**, C4:2-4 and Fig. 43) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by being able to alter the design of the data repository layer as taught by Bowman to have a methodology management application operable to allow a user to manage a methodology from a methodology repository associated with the data repository layer.

For the purpose of allowing the user to set up an organization design regarding the repository layer.

Claim 13

Fowler and Chappel do not teach a solution landscape management application operable to allow a user to manage a solution landscape from a landscape version repository associated with the data repository layer.

Bowman teaches a solution landscape management application operable to allow a user to manage a solution landscape from a landscape version repository associated with the data repository layer. (**Bowman**, C37:46-53; 'Solution landscape management' of applicant is equivalent to 'version control' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having a solution repository in a organized fashion as taught by Bowman to have a solution landscape management application operable to allow a user to manage a solution landscape from a landscape version repository associated with the data repository layer.

For the purpose of being able to access various solutions with neighboring solutions being closely related, thus reducing search cost.

Claim 14

Fowler and Chappel do not teach a business process analyzer and a control object repository associated with the data repository layer.

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Bowman teaches a business process analyzer (**Bowman**, C161:32-41; Bowman illustrates analyzing 'business use case') and a control object repository associated with the data repository layer. (**Bowman**, C37:46-53) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having the business process analyzer and control object repository on the same level as taught by Bowman to have a business process analyzer and a control object repository associated with the data repository layer.

For the purpose of having modules which interact with one another be at the same level as one another to ease communication costs.

Claim 15

Fowler and Chappel do not teach a business process object management application and a technology object management application operable to allow a user to manage business process objects and technology objects.

Bowman teaches a business process object management application and a technology object management application operable to allow a user to manage business process objects and technology objects. (**Bowman**, C48:18-26 and C23:35-39; 'Business process object management' of applicant is equivalent to 'direct manipulation services' of Bowman. 'Technology object management' of applicant is equivalent to 'delivery vehicle reference' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the

combined teachings of Fowler and Chappel by having agents which can manage both business objects and technology objects as taught by Bowman to have a business process object management application and a technology object management application operable to allow a user to manage business process objects and technology objects.

For the purpose of easing the burden of the user by employing agents which can manage both business proves objects and technology objects.

Claim 16

Fowler and Chappel do not teach a technology component identifier and a classification repository associated with the data repository layer.

Bowman teaches a technology component identifier and a classification repository associated with the data repository layer. (**Bowman**, C192:13-25 and C130:51-64; 'Component identifier' of applicant is illustrated in operation 5410 of Bowman. 'Classification repository' of applicant is equivalent to 'partitioned business component' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having both the technology component identifier and the classification repository within the same layer as taught by Bowman to have a technology component identifier and a classification repository associated with the data repository layer.

For the purpose of having two modules which communicate with each other on the same level lowers communication costs.

Claim 17

Fowler and Chappel do not teach stores a plurality of user-selectable solution determination structures, each solution determination structure having a plurality of parameters and solution determination procedures.

Bowman teaches stores a plurality of user-selectable solution determination structures, each solution determination structure having a plurality of parameters and solution determination procedures. (**Bowman**, C14:34-43; 'Determining structures' of applicant is equivalent to 'frameworks' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by storing solutions as taught by Bowman to stores a plurality of user-selectable solution determination structures, each solution determination structure having a plurality of parameters and solution determination procedures.

For the purpose of accessing solutions without the cost of generating solutions.

Claim 18

Fowler and Chappel do not teach solution determination procedure comprises control objects linked to routines.

Bowman teaches each solution determination procedure comprises control objects linked to routines. (**Bowman**, C20:24-32; 'Solution', 'routines' and 'control objects' 'meet a specific set of user or application requirements', 'applications' and

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'components' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by generating a solution by associating objects to functions as taught by Bowman to have solution determination procedure comprises control objects linked to routines.

For the purpose of generating a solution for the user.

Claim 19

Fowler and Chappel do not teach a solution determination structure instantiation having a user-selectable initiative, business area, business process and business activity.

Bowman teaches stores a solution determination structure instantiation having a user-selectable initiative, business area, business process and business activity.

(**Bowman**, C21:52-61; 'Business area', 'business process' and 'business activity' of applicant is equivalent to 'core business', 'architecture' and 'infrastructure' of Bowman.)

It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by allowing the user to have options of selection as taught by Bowman to have a solution determination structure instantiation having a user-selectable initiative, business area, business process and business activity.

For the purpose of allowing the user to search for solution in a plurality of domains.

Claim 20

Fowler and Chappel do not teach solution determination structure instantiation is linked to a plurality of templates, the templates being linked to pre-defined business process objects and pre-defined technology objects.

Bowman teaches solution determination structure instantiation is linked to a plurality of templates, the templates being linked to pre-defined business process objects and pre-defined technology objects. (**Bowman**, C14:34-41 and C131:22-35; 'Template' of applicant is equivalent to 'template' of Bowman. Bowman equates 'template' as a functioning 'framework') It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having solutions linked to business objects templates and technology templates as taught by Bowman to have solution determination structure instantiation is linked to a plurality of templates, the templates being linked to pre-defined business process objects and pre-defined technology objects.

For the purpose of using templates as a guide for collecting necessary input data.

Claim 21

Fowler and Chappel do not teach templates comprising a solution template, a business object template, a technology object template and a project template.

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Bowman teaches templates comprising a solution template (**Bowman**, C15:9-32), a business object template (**Bowman**, C14:52-64), a technology object template (**Bowman**, C13:30-42) and a project template. (**Bowman**, C31:28-33) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having numerous categories of templates as taught by Bowman to have templates comprising a solution template, a business object template, a technology object template and a project template.

For the purpose of template specific requirements for specific solution generation which reduces computation costs.

Claim 22

Fowler and Chappel do not teach a primary work area with active solution variants and inactive solution variants.

Bowman teaches provides a primary work area with active solution variants and inactive solution variants. (**Bowman**, C116:52-57; 'Primary work area' of applicant is equivalent to 'system software' of **Bowman**.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having a area with both active and inactive solutions possibilities as taught by Bowman to have a primary work area with active solution variants and inactive solution variants.

For the purpose of allowing the user the option of using either active or inactive solution variants.

Claim 23

Fowler and Chappel do not teach a primary work and an alternate work area.

Bowman teaches a primary work and an alternate work area. (**Bowman**, C116:52-57; 'Alternate work area' of applicant is equivalent to 'management system' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having different levels of work area as taught by Bowman to have a primary work and an alternate work area.

For the purpose of dividing the task into smaller domain if needed for increased efficiency

Claim 24

Fowler and Chappel do not teach an exchange infrastructure operable to allow applications in the application layer to communicate with external applications.

Bowman teaches an exchange infrastructure operable to allow applications in the application layer to communicate with external applications. (**Bowman**, C31:57 through C32:5; 'Exchange infrastructure' of applicant is equivalent to items '1006, 1008 and 1010' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and

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Chappel by allowing communication of various layers to external layers as taught by Bowman to have an exchange infrastructure operable to allow applications in the application layer to communicate with external applications.

For the purpose of being able to post a solution to an outside layer.

Claim 26

Fowler and Chappel do not teach providing a software application layer and an exchange infrastructure, the exchange infrastructure allowing applications in the software application layer to communicate with external applications.

Bowman teaches providing a software application layer and an exchange infrastructure, the exchange infrastructure allowing applications in the software application layer to communicate with external applications. (**Bowman**, C31:57 through C32:5; 'Exchange infrastructure' of applicant is equivalent to items '1006, 1008 and 1010' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by allowing communication with outside applications as taught by Bowman to have providing a software application layer and an exchange infrastructure, the exchange infrastructure allowing applications in the software application layer to communicate with external applications.

For the purpose of being able to post a solution to an outside layer.

Claim 27

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Fowler and Chappel do not teach providing a plurality of solution determinations structures.

Bowman teaches providing a plurality of solution determinations structures. (**Bowman**, C14:34-43; 'Determining structures' of applicant is equivalent to 'frameworks' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by providing numerous solutions as taught by Bowman to providing a plurality of solution determinations structures.

For the purpose of giving the option of a plurality of solutions to a user.

Claim 28

Fowler and Chappel do not teach providing a plurality of user-selectable business process templates and user-selectable technology object templates.

Bowman teaches providing a plurality of user-selectable business process templates and user-selectable technology object templates. (**Bowman**, C14:34-41 and C131:22-35, Fig 39; 'Template' of applicant is equivalent to 'template' of Bowman. Bowman equates 'template' as a functioning 'framework'. Figure 39 discloses a user interface.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by providing templates of both business process and technology as taught by Bowman to providing a plurality of user-selectable business process templates and user-selectable technology object templates.

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For the purpose of allowing a user to select which business and technology templates to use.

Response to Arguments

5. Applicant's arguments filed on August 21, 2007 for claims 1-3, 5-31 have been fully considered but are not persuasive.

6. In reference to the Applicant's argument:

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed on May 22, 2007 ("Office Action"). Claims 1-3 and 5-31 are pending in the Application and stand rejected. Claims 1, 2, 25, and 29 have been amended. Applicants respectfully request reconsideration and favorable action in this case.

Section 101 Rejections

Claims 1-3 and 5-31 stand rejected under 35 U.S.C. § 101 for containing nonstatutory subject matter. While Applicants continue to traverse the § 101 rejections in the prior Office Actions, Applicants have amended independent Claims 1, 25, and 29 as recommended by the Examiner to further provide for a practical application with a useful, concrete, and tangible result. Support for the additional claim language added by amendment may be found, for example, at [0079], [0087], [00304], [00306], Fig. 2, and Figs. 3A-3B. Applicants note, however, that similar examples may be found elsewhere in the specification and drawings of the present Application. Accordingly, Applicants respectfully request reconsideration and allowance of all claims over the § 101 rejection in light of these remarks and amendments.

Examiner's response:

The rejection stands based on two points. First, the invention's claims and specification remain within the realm of abstract concepts. There is no definite solution

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in which the invention can be employed. There are broad areas in which the invention 'may' be employed. These areas may not be covered as well. The second point is there are known and unknown uses for the invention. If there exists a accepted definition of 'business issues', then everything that fall outside the domain of 'business issues' is labeled external 'business issues.' The invention does not have a practical application and contains known and unknown uses. Office Action stands.

7. In reference to the Applicant's argument:

Section 112 Rejections

Claims 1-3, 5-21, 25, and 27-31 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse the rejections and all the assertions and holdings therein. Indeed, Applicants assert that each listed term is more than sufficiently described and supported within the Application. It is well settled that the written description requirement of § 112 is satisfied when the specification describes the claimed invention in sufficient detail so that one of ordinary skill in the art can reasonably conclude that the inventors had in their possession the claimed invention. See M.P.E.P. § 2163 (citing *Moba, B.V.v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003); *Vas- Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)). There is a strong presumption that the claimed invention is adequately described when the application is filed, or in other words, it is presumed that originally filed claims comply with the written description requirement. See M.P.E.P. § 2163(I)(A). Importantly, the claimed subject matter "need not be described literally (i.e., using the same terms or in haec verba) in order for the disclosure to satisfy the description requirement." *Id.* § 2163.02.

With this in mind, Applicants respectfully assert that one of ordinary skill in the art would reasonably conclude that Applicants had possession of the claimed subject matter, thereby satisfying the written description requirement, particularly for each term indicated by the Office Action. Applicants have provided references below to select portions of this Application that describe examples of the particular claim term. Applicants provide these references for the purpose of expediting prosecution of the

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Application only, without construing the meaning of the claims, and submit that additional portions of the Application can provide similar examples.

- Claims 21 and 31 ("solution template") - for example, Applicants direct the Examiner to [0088] and [00266] of the Application.

Examiner's response:

Paragraph 0088 states '[0088] A Solution Landscape Management (SLM) component 224 retrieves technology components in the architectural landscape, which are stored as Solution Templates, and structures them in a coherent manner for review and evaluation. SLM 224 may enforce version control. Every version of solution landscape snapshot can be linked with a corresponding project in the Project Management component 222 for a complete analysis of a BSM project.' The Examiner does not see an outline which can be described as a 'template' within this paragraph.

Paragraph 0266 states '[0266] Solution templates encompassing business, technology, and task objects.' The Examiner does not see an outline which can be described as a 'template' within this paragraph. It appears that 'technology components' are elements only which can be seen as a simple function. Office Action stands.

8. In reference to the Applicant's argument:

- Claims 1, 3, 7, 15, 20, 21, 25, 28, 29, 30 ("technology object") - for example, Applicants direct the Examiner to [0053] and [00281]-[00288] of the Application.

Examiner's response:

Paragraph 0053 states ' [0053] All components, business processes, and technology solutions within the BSM system 101 may be constructed in an object-

oriented concept. For instance, the BSM system 101 may implement a question and answer process represented by instances of an object type that are defined as "parameter objects" (described below). Business components of a solution development effort may be defined as "business object" types, as described below with reference to Business Process Object Management 522 in FIG. 5B. Similarly, technology components utilized in the BSM system 101 may be implemented as instances of a "technology object" type. The complete object orientation of the BSM system 101 may achieve maximum flexibility and reusability of all objects in the BSM system 101.' If a function can be a 'technology component' (see above), then implementing the function is an instance of 'technology object' makes no sense, due .

Paragraph 0281-0288 states '[0281] A Technology Object Management function 524 may include standard pre-defined and pre-configured BSM technology objects 314 (FIGS. 3A-3B); creation of new technology objects, and management of technology objects and instantiations. The Solution Determination Structure 910A includes parameters 904 that will directly define the need for a technology component. There may be various types of technology objects 314.

[0282] "Generic component objects" are used to identify general architectural components such as Lightweight Directory Access Protocol (LDAP), Portal Content Management, Demand Planning, etc.

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[0283] "Generic integration objects" are used to identify generic, standard aspects of integration such as remote function calls (RFCs), APIs, protocols, interfaces, methods, techniques, etc.

[0284] "Solution component objects" are used to identify vendor-specific components that will be a part of the actual solution realized.

[0285] "Solution configuration objects" are used to identify the active aspects of the configuration of a technology component object.

[0286] "Solution integration objects" are used to identify non-standard aspects of the solution's integration.

[0287] SAP provides an extensive repository of technology objects applied throughout its offerings. While these technology objects may not be changed, they can be copied to new object IDs and then modified. Additionally, users may choose to create their own technology objects. A user can also create, modify, and delete instances of these technology objects. Every technology object contains certain parameters that are assigned to its definition are filled with values when creating an instance.

[0288] A "technology object" exists for each technology component and each configuration structure in the architectural landscape. The attributes for the components/structures are captured within the technology object. Thus, the technology object clearly describes the functionality and its purpose in the architecture, as well as other specific information.'

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The rejection is concerned with the definition of a 'technology object' and not a 'technology object management function.' The 'technology object management function' 'may' include 'technology objects or it 'may not.' The statement that a "technology object" exists for each technology component does not describe what a 'technology object' is. Paragraph 0288 is a vague definition only with no domain within rooted within a practical application Office Action stands.

9. In reference to the Applicant's argument:

- Claims 1, 2, 25 ("first" and "second data repository") - for example, Applicants direct the Examiner to Fig. 3B of the Application.

Examiner's response:

In Figure 3B, there are total of 8 repositories and databases none of which are labeled 'first repository' and 'second repository.' Office Action stands.

10. In reference to the Applicant's argument:

- Claim 5 ("displaying questions to the user") - for example, Applicants direct the Examiner to Figs. 2-3, [0053], [0070], [0075], [00100] and [00217] of the Application.

Examiner's response:

Based on paragraph 0217, the Examiner withdraws the rejection.

11. In reference to the Applicant's argument:

- Claims 1, 3, 6, 21, 29 ("business object") - for example, Applicants direct the Examiner to [0053], [00272]-[00278], [00488] and [00722] of the Application.

Examiner's response:

Paragraph 0053 only states what a 'business object' may be. Paragraphs 0272-0278 recite a number of areas in which 'business objects' cover, but lack a definition what it is. Paragraph alone suggests completely different domains for a 'business object'. For example it can be 'business areas' which is a domain or 'steps' which looks like a process. 'Business object' within paragraph 0488 is the result of user instantiated from a Q & A process. This is very broad and abstract and does not clearly define what a business object is but merely the creation of an abstract concept of what is used to create a 'business object.' 'Business objects' are not mentioned within paragraph 0722. Office Action stands.

12. In reference to the Applicant's argument:

- Claim 8 ("select" a "business solution") - for example, Applicants direct the Examiner to [0009], [0079] and [00161] of the Application.

Examiner's response:

Paragraphs 0009 and 0079 do even mention the word 'select.' There is no mention of a 'user' making a 'selection.' Office Action stands.

13. In reference to the Applicant's argument:

- Claim 9 ("maintain and modify a knowledge base") - for example, Applicants direct the Examiner to [0063], [0068] and [0075]-[0076] of the Application.

Examiner's response:

Paragraph 0063 makes no statement relating to allowing a user maintain and modify a knowledge base. Paragraph 0068 mentions an 'interface frontends of applications in the application layer 104 of agents 202, 203, 204, 208, 212. Looking at Figure 2, agents 202, 203, 204, 208, 212 are within the 'technology solution architect portal layer.' 'Application layer 104' is not above agents 202, 203, 204, 208, 212 in a hierarchical setting. Paragraphs 0075 and 0076 mention a 'knowledge base management' application but does not state this is user controlled. Office Action stands.

14. In reference to the Applicant's argument:

- Claim 10 ("maintain and modify a project") - for example, Applicants direct the Examiner to [0084]-[0085] and [0088] of the Application.

Examiner's response:

Paragraph 0084 and 0085 make no statement that a user is allowed to maintain and modify a project. Office Action stands.

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15. In reference to the Applicant's argument:

- Claim 11 ("maintain and modify an integrated implementation") - for example, Applicants direct the Examiner to [0087] and [00525]-[00526] of the Application.

Examiner's response:

Paragraph 0087 mentions 'integrated implementation' but this term is not defined. For example what would be the difference between 'integrated implementation' and just plain 'implementation?' Paragraphs 0525 and 0526 along with (not mentioned ¶0524) seem to suggest if multiple possible solutions prototypes exists, then the integrated implementation 'extends that configuration occurred to pursue these prototypes validations.' How does the invention execute or develop a plan which integrated multiple prototype validations. Office Action stands.

16. In reference to the Applicant's argument:

- Claims 2, 8, 10-14, 16, 17 ("repository layer") - for example, Applicants direct the Examiner to [0056] and [0059] of the Application.

Examiner's response:

Paragraph 0056 mentions four different layers. Paragraph 0059 mentions a database layer. Since the applicant chose not to amend the claims from 'repository layer' to 'database layer' there must be a difference between the two. The Office Action stands.

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17. In reference to the Applicant's argument:

- Claim 16 ("technology component identifier") - for example, Applicants direct the Examiner to [0073] and [0080]-[0081] of the Application.

Examiner's response:

Paragraph 0073 mentions the 'technology component identifier' but does not state or describe how that component works. Paragraph 0080 mentions that it may be set up in a number of different ways including 'nested classes, multi-level characteristics definitions, and value assignment for the characteristics. In fact the 'technology component identifier' may be set up as SAP variant configurations and classifications as well as classification system products from other companies. Therefore there are known and unknown 'technology component identifier' components being used, thus it is not clearly described within the specification. Office Action stands.

18. In reference to the Applicant's argument:

- Claims 17 and 19 ("solution determination structures") - for example, Applicants direct the Examiner to [00146] and [00148] of the Application.

Examiner's response:

Paragraph 0146 and 0148 describes that a 'solution determination structure' may 'provide maximum solution development flexibility in friendly and easy to use ways.'

The specification does not how this is accomplished. Due to the fact how this is accomplished is not described, it may not occur at all and the claim language is nothing more than a question of labeling only. Like most other portions of the specification, the

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discussion and definitions are in the abstract and very little is absolutely defined. Office Action stands.

19. In reference to the Applicant's argument:

•Claim 27 ("plurality of solution determination structures") - for example, Applicants direct the Examiner to Fig. 9, [0075] and [00249] of the Application.

Examiner's response:

Paragraphs 0075 and 0249 mention 'plurality of solution determination structures', the problem is a single 'solution determination structure' is not clearly defined nor described in its manufacture or generation. Therefore, a plurality of solution determination structures is not defined as well. Office Action stands.

20. In reference to the Applicant's argument:

Further, the Office Action appears to object to the use of permissive language, such as the word "may" in describing certain aspects of the claimed subject matter. See, e.g., Office Action at 5 (objection in the context of "technology object"). Applicants explicitly traverse these remarks and any rejections based thereon. Specifically, Applicants submit that the noted phrases are clear, concise and exact, and dispute the assertions that the phrases are in any way unclear, inexact, indefinite, or do not fully and clearly describe and support the claimed subject matter. Also, saying that something "may" merely provides the permissive nature of the attribute that "may" be. To be clear, Applicants are unaware of any support for this rejection and request that the Examiner either (a) provide such support or (b) withdraw this rejection.

Examiner's response:

This application is a disclosure of a variety of abstract concept modules with loosely described definitions with relationships between these modules that 'may' occur. The word 'may' is not definitive or absolute. There are no formulas, methods or algorithms which describe these interactions between these modules and the description of 'may' only clouds the issues and keeps the interactions between these modules vague. For example from ¶0052 through ¶0055 (U. S. Patent Publication 20050021348) the detained description lists numerous components which 'may' include. This does not state that all these components have to be present. This does not exclude any other components which are not listed could be incorporated into the business solution management system. Office Action stands.

21. In reference to the Applicant's argument:

Section 102 Rejection

Claim 29 stands rejected under 35 U.S.C. § 102(b) as being anticipated by "UML Distilled." A Brief Guide to the Standard Object Modeling Language" by Fowler ("Fowler"). Applicants respectfully traverse the rejections and all the assertions and holdings therein,³ because Fowler fails to teach, suggest, or disclose each and every element of Claim 29 as required. See M.P.E.P. § 2131.

For example, Fowler fails to teach "prompting the user to select at least one instantiated business process object and one instantiated technology object," as recited by Claim 29. The Office Action relies on Fowler's disclosure of a "structural feature" and a "behavioral feature" to reject the claimed instantiated technology object and instantiated business process object, respectively. See Office Action at 11. At the outset, Applicants note that Fowler generally describes the Unified Modeling Language (UML) and its capabilities. See generally Fowler. UML is a standardized specification language for object modeling used, for example, to create an abstract model of a system. Accordingly, there is no indication in Fowler that these "features" are, in fact, "objects," to say nothing of "instantiated objects." More particularly, Fowler describes "structural" and "behavioral features" in the context of a UML meta-model, i.e., a diagram that

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describes a notation. See *id.* at 4, Fig. 1-1. Applicants respectfully submit that neither the description of the UML meta-model in Fowler, nor the figure illustrating such a meta-model, teach, suggest, or describe a "business process object" or a "technology object," instantiated or otherwise.⁴

As another example, Fowler further fails to teach "maintaining and modifying the business solution," as recited by Claim 29. The Office Action asserts that "objects that are set up and then left alone" in Fowler, thereby disclosing "maintaining and modifying the business solution." See Office Action at 11. Putting aside that there is no indication that the features (the so-called "objects") in Fowler are analogous to the claimed "business solution," Fowler expressly notes that objects are "not modified often, and when they are, we can create them again." Fowler at 8. In short, rather than teaching that the business solution may be modified as the Office Action asserts, Fowler indicates that the few objects that are modified are created anew.

For at least the reasons above, Applicants respectfully request the rejection of Claim 29 in view of Fowler be withdrawn and that this claim and those depending therefrom be reconsidered and allowed.⁵

Examiner's response:

Applicant states that 'there is no indication in Fowler that these "features" are, in fact, "objects," to say nothing of "instantiated objects.'" The Examiner disagrees due to the fact that neither 'objects' or 'instantiated objects' are clearly defined within the specification. Making the statement that 'features' are not equivalent to 'objects' or 'instantiated objects' is groundless due to a lack of definition of 'objects' or 'instantiated objects'.

Applicants states 'that neither the description of the UML meta-model in Fowler, nor the figure illustrating such a meta-model, teach, suggest, or describe a "business process object" or a "technology object," instantiated or otherwise. Just as the argument above, since business process object or technology object is not clearly defined within the specification, the applicant's arguments are groundless.

Applicant states that Fowler does not teach 'maintaining and modifying the business solution.' Applicant admits that 'Fowler indicates that the few objects that are modified are created anew' which means they can be modified.

One example of the generation of a 'feature' is the combination of a 'behavioral feature' and a 'structure feature' of Fowler. To add features, the creation of a subtype is needed. Thus 'prompting a user to select...' is the ability to create a 'subtype' of Fowler. (**Fowler, #18, #5**) 'User parameters' of applicant is equivalent to 'parameter' of Fowler. (**Fowler, #5, Figure 1.1, #12**) 'Predefined business objects' of applicant is equivalent to the 'behavioral feature' of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of Fowler. (**Fowler, #5, Figure 1.1, #12**) 'Maintaining' of applicant is equivalent to '...as these objects that are set up and then left alone...' of Fowler. 'Modifying' of applicant is equivalent to '...they are not modified often, and when they are, we can create them again.' of Fowler. (**Fowler, #8**) a working interface must be able to have a system that can 'interface with along with protocols and physical media.' 'Graphical user interface' of applicant is disclosed by a 'the creation of various graphical or text based documents' of Fowler. (**Fowler, #1:21-24 and #4:14-39**) Office Action stands.

22. In reference to the Applicant's argument:

Section 103 Rejections

Claims 1 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fowler in view of U.S. Patent Publication No. 2002/0174005 to Chappel ("Chapper"). Applicants respectfully traverse the rejections and all the assertions and holdings

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therein. Specifically, Chappel fails to account for the deficiencies in Fowler described above with regard to certain aspects in amended Claims 1 and 25 that are analogous to those in Claim 29, such as "business process objects" and "technology objects."⁶ Chappel describes a use of statistical modeling and rules-based analysis methods to plan a business operation. See Chappel at [0020]- [0021]. Chappel further describes two databases, a source database 140 and rules database 145, to store business data and predetermined rules, respectively. See *id.* at [0026]. The Office Action seems to compare Chappel's source database 140 and rules database 145 to the claimed first and second data repositories, respectively. But Chappel's mere showing of some database, indeed even two databases, simply does not address the full language of the claimed repositories, namely, "a first data repository comprising the instantiated user-selectable, pre-defined business objects" and "a second data repository comprising the instantiated user-selectable, pre-defined technology objects," as recited by example Claim 1. For example, Chappel teaches that the rules database stores "predetermined rules used to process or analyze results from the statistical analysis performed by the software tools." *Id.* Further, Chappel teaches that the rules database "may include additional knowledge, facts and assertions, that is [sic] generated by the software tools." *Id.* Put another way, Chappel's source database is not "a first data repository comprising the instantiated user-selectable, pre-defined business objects" and Chappel's rules database is not "a second data repository comprising the instantiated user-selectable, pre-defined technology objects."

Accordingly, Applicants respectfully request reconsideration and allowance of amended Claim 1 and all claims depending therefrom. Claim 25, as amended, includes certain aspects analogous to Claim 1. Therefore, Applicants respectfully request reconsideration and allowance of Claim 25 and all claims depending therefrom.

Examiner's response:

'Technology objects' and 'business objects' are not specifically defined within the specification. They are defined in abstract terms and relations. Therefore 'First data repository' of applicant is equivalent to 'source database' of Chappel. 'Second data repository' of applicant is equivalent to 'rules database' of Chappel. Office Action stands.

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23. In reference to the Applicant's argument:

1 It appears that Claims 2, 3, 5-24, 26-28, 30, and 31 stand rejected solely under 35 U.S.C. §§ 101 and 112. Accordingly, Applicants respectfully request an indication from the Examiner that these claims would be allowable if rewritten in independent form, at least in view of the foregoing remarks.

Examiner's response:

The Examiner feels the rejections under 35 U.S.C. §101 and 112 are strong and rewriting them in independent form would have little effect.

24. In reference to the Applicant's argument:

2 While the current Office Action purports to incorporate prior Office Actions, this Office Action further states that "Bowman is no longer used as a reference for this application." Applicants read this statement, as well as the Office Action's reliance on new references, to mean that the previous responses were successful in traversing the Bowman reference. If Applicants' reading of the current Office Action is incorrect in this regard, Applicants respectfully request the Examiner to notify the Applicants immediately to discuss any continuing rejections based on this reference.

Examiner's response:

The Examiner had no problems with the reference 'Bowman.' The applicant's arguments are always considered and the Examiner felt that Bowman was a good reference, the current references are a better fit.

25. In reference to the Applicant's argument:

3 Further, Applicants reassert the previous responses to the various references in the prior Office Actions and submit that the newly cited art fails to account for the deficiencies in the art cited in previous actions.

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4 Moreover, an "instantiated business process object" and an "instantiated technology object" are two distinct aspects of a business solution management system, method, or software, each describing distinct components of the business solution. See, e.g., Application at [0053]. In contrast, Fig 1-1 of Fowler appears to indicate that both the "behavioral feature" and the "structural feature" are sub-components of a "feature," i.e., they do not describe distinct components of a business solution (even assuming arguendo that Fowler teaches, suggests, or discloses a business solution, which Applicants dispute).

Examiner's response:

The Examiner sees both the application and Fowler as the same concept. The difference which is argued here seems an issue of point of view. Fowler has the position there exists a solution which can be broken into subsystems. The application can take one or more 'business objects' and 'technology objects' to find a solution.

25. In reference to the Applicant's argument:

5 Additionally, Applicants respectfully traverse the Office Action's bald assertion that claims may be interpreted in their broadest reasonable sense. See Office Action at 18-19, ¶¶ 8-10. Applicants submit that claims must be read in "light of the specification as it would be interpreted by one of ordinary skill in the art." M.P.E.P. § 2111 (quoting *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)). In other words, "[t]he broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach." M.P.E.P. § 2111 (citing *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999)).

Examiner's response:

The specification is very broad regarding possible and concerns itself only to 'business' which can have numerous meanings. Fowler has broad domains regarding modeling abilities. Fowler combined with the 'business operations' of Chappel seem to fall within the domain of the invention.

25. In reference to the Applicant's argument:

Cawse was also cited by the Examiner for its disclosure of a computer forming a neural system. Applicants, however, could find no disclosure or suggestion by Cawse of slices of prototypes, or of comparing, according to predetermined criteria, a current global result from a current slice with a previously obtained global result from a previous slice.

Examiner's response:

UML is of course software. Another way of looking at this is UML is not hardware nor is it firmware, but it is software.

Examination Considerations

26. The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the

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art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

27. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and sprit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

28. Examiner's Opinion: Paragraphs 26 and 27 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

29. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

- 'Design Patterns': Gamma
- 'Object Solutions': Booch
- 'Exploring Requirements: Quality Before Design': Gause
- 'The Unified Modeling Language User Guide': Booch

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- 'UML Toolkit': Eriksson

- 'Visual modeling with Rational Rose 2002 and UML': Quatrani

- 'Applying UML and Patterns: An Introduction to Object Oriented Analysis and Design and the Unified Process, 2nd edition': Larman

30. Claims 1-3, 5-31 are rejected.

Correspondence Information

31. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

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Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:


(571) 272-3150 (for formal communications intended for entry.)

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Peter Coughlan

9/24/2007



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